

REMARKS

Claims 1-30 stand rejected under 35 U.S.C. 102(e) as being anticipated by Shafer (US 2001/0043391). Applicants respectfully request reconsideration and allowance of the claims in view of the following remarks and the foregoing amendments.

The Shafer reference discloses a microlithographic reduction projection catadioptric objective. Generally, the objective of this reference includes a first optical group having a positive overall magnifying power and a second optical group having a negative overall magnifying power.

Claim 1 has been amended to recite a photolithographic reduction projection catadioptric objective that includes a first optical group and a second at least substantially dioptric optical group. The first optical group includes at least six mirrors. . In addition, claim 7 has been amended to recite that the virtual image is formed physically behind a sixth mirror (M6). This feature is not present in the Shafer reference and therefore, this is yet another feature that is included in the present invention but entirely absent in Shafer. On these grounds, reconsideration and allowance are in order.

Claims 2-6, 9-10, and 12 should be allowed as depending from what should be an allowed independent claim 1.

Claim 7 has been amended to recite a photographic reduction projection catadioptric objective that includes a first optical group and a second at least substantially dioptric optical group. The first optical group includes at least six mirrors. In addition, claim 7 has been amended to recite that the virtual image is formed physically behind a sixth mirror (M6). This feature is not present in the Shafer reference and therefore, this is yet another feature that is included in the present invention but entirely absent in Shafer. On these grounds, reconsideration and allowance are in order.

Claim 8 should be allowed as depending from what should be an allowed independent claim 7.

Claim 11 has been amended to recite a photographic reduction projection catadioptric objective that includes a first optical group and a second at least substantially dioptric optical group. The first optical group includes at least six mirrors. In addition, claim 11 has been amended to recite that an intermediate image is formed optically between a fourth mirror (M4) and a fifth mirror (M5). This is yet another feature that forms a part of the present invention but is entirely absent from the Shafer reference. On these grounds reconsideration and allowance are in order.

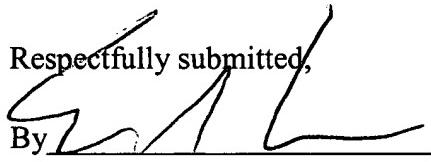
Claims 14-30 should be allowed as depending from what should be an allowed independent claim 11.

Claim 13 has been amended to recite that the at least six mirrors includes a first mirror (M1); a second mirror (M2); third mirror (M3); and a fourth mirror (M4). The third mirror (M3) and the fourth mirror (M4) are disposed optically after the first and second mirrors (M1, M2) but are physically disposed between the first and second mirrors (M1, M2). Applicants respectfully submit that this reference fails to include the claimed arrangement and therefore, the rejection of claim 13 should be withdrawn.

In view of the above, each of the presently pending claims in this application is believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to pass this application to issue.

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Respectfully submitted,

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